

Appendix V

Glossary of Terms
Used in the LCR MSCP HCP and BA

Appendix V

Glossary of Terms

Used in the LCR MSCP HCP and BA

The definitions provided in this glossary include ecological and regulatory terms used in the LCR MSCP BA and HCP. Some of the definitions of terms were specifically developed for the LCR MSCP BA and HCP and are not the same as definitions used for other programs in other places.

Term	Definition
Adaptive management	An interactive process whereby management of species populations and habitat is initiated, evaluated, and refined based on monitoring and research results.
Environmental baseline	The environmental baseline includes the past and present impacts of all federal, state, or private actions and other human activities in the action area, the anticipated impacts of all proposed federal projects in the action area that have already undergone formal or early Section 7 consultation, and the impact of state or private actions which are contemporaneous with the consultation in process (50 C.F.R. §402.02). For the LCR MSCP the action area is the LCR MSCP planning area where federal covered activities will be conducted
Biological Opinion	The document that states the opinion of the Service (i.e., USFWS for the LCR MSCP) as to whether or not the federal action is likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat (50 C.F.R. §402.02).
Connected backwaters	Backwaters that have a surface connection to the river, respond directly to changes in river water surface elevation, and provide continuity for movement of fish and other aquatic organisms.
Conservation	From Section 3(3) of the Federal Endangered Species Act: The terms "conserve," "conserving," and "conservation" mean to use and the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided under this Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transportation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.
Conservation Area	Conservation areas are discrete areas of conserved habitats managed as a single unit under the LCR MSCP. Conservation areas include LCR MSCP created habitats as well as buffer areas and other lands that may be included in the conservation area design.

Term	Definition
Conservation Measure	A conservation measure is a management action that, when implemented, will partially or wholly achieve LCR MSCP goals for covered and evaluation species.
Contaminants	Any undesirable physical, chemical, biological, or radiological substance present in water as a result of human activities.
Contribute to Recovery	Actions that measurably increase the baseline for covered species. Contribute to recovery does not include actions necessary to avoid, minimize, or mitigate impacts of covered activities. Contribution to recovery is achieved by the actions taken by LCR MSCP participants to protect, create, and maintain habitat within and outside of the LCR MSCP planning area. The magnitude of contribution to recovery is based on the proportion of a species' range that is within the LCR MSCP planning area, the sensitivity of the species to activities associated with the legal use of LCR water resources by LCR MSCP participants, and the practicability of actions under the control and within the scope of the LCR MSCP participants that are necessary to recover a species.
Covered Species	Those species addressed in the LCR MSCP Conservation Plan for which conservation measures will be implemented and for which the Permit Applicants seek authorization for take under Section 10 of the federal Endangered Species Act and Section 2081 of the California Endangered Species Act, and Reclamation seeks authorization for take under Section 7 of the federal Endangered Species Act.
Create Habitat	The establishment of habitat within an area that currently does not support that habitat. Creating habitat results in an increase in habitat quantity. Habitat created under the LCR MSCP may require ongoing management to ensure the created habitat is maintained over the 50-year duration of the LCR MSCP.
Critical Habitat	An area designated as critical habitat listed in 50 C.F.R. Parts 17 or 226 (50 C.F.R. §402.02). Critical habitat areas are specific geographic areas, whether occupied by listed species or not, that are determined to be essential for the conservation and management of listed species, and that have been formally described in the Federal Register.
Disconnected Backwaters	Backwaters that lack a surface connection to the river, generally respond to changes in groundwater elevation, and provide isolated habitat for fish and other aquatic organisms.
Ecosystem Restoration	The establishment of ecological functions within an area that historically supported those functions but presently does not support those functions.
Emergent	Flooded or ponded areas that support rooted, herbaceous vegetation with parts of the shoot both below and above water, including cattail and bulrush.
Endemic Species	A species restricted to and only known to naturally occur within a specific geographic area.
Entrainment	The incidental trapping of fish and other aquatic organisms in water diverted from streams, rivers, and reservoirs.
Epilimnion	Warm, oxygen-rich, circulating layer of water at the surface of a lake.
Eutrophic	Classification of lakes with the highest nutrient levels and highest primary productivity.
Extinct species	A species no longer in existence.
Extirpated species	A species no longer surviving in regions that were once part of its range.

Term	Definition
Goal	A broad, guiding principle that identifies an expected outcome of the Conservation Plan. LCR MSCP Conservation Plan goals describe the desired future condition for each covered species with full implementation of the Conservation Plan.
Habitat	In scientific and lay publications, habitat is defined in many different ways and for many different purposes. For the purpose of the LCR MSCP, habitat is defined as the specific places where the environmental conditions (i.e., physical and biological conditions) are present that are required to support occupancy by individuals or populations of a given species. Habitat is always identified with regard to a species and is specific to each species physical and biological requirements. Habitat may be occupied (individuals or population of the species are, or have recently been, present) or unoccupied (see “unoccupied habitat”).
Habitat-Based Approach to Conservation	The use of habitat maintenance and creation/restoration measures guided by the principles of conservation biology to develop a conservation plan for the conservation of covered species.
Habitat Quality	Habitat quality refers to the ability of the environment to provide conditions that support individual and population persistence (Hall et al. 1997). The precise meaning of quality varies by species and depends on needs during occurrence within the LCR MSCP planning area. High quality habitat for some species would include only foraging and resting elements; for others it would include foraging, resting, and nesting elements or may include all elements needed for a species to complete its life cycle. Low quality habitat would include only the minimal elements that support occurrence of the species.
Extent of Habitat	Habitat quantity refers to the area of the environment that provides conditions that produce or could produce occupancy of a given organism.
Harass	An intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering (50 C.F.R. §17.3).
Harm	An act which actually kills or injures wildlife. Such act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns including breeding, feeding, or sheltering (50 C.F.R. §17.3).
Historical range	Those geographic areas the species was known or believed to occupy in the past.
Hypolimnion	Cold, oxygen-poor, non-circulating layer of water at the bottom of a lake.
Incidental take	Take that results from, but is not the purpose of, carrying out an otherwise lawful activity.
Land Cover Type	The dominant feature of the land surface discernible from aerial photographs, defined by vegetation, water, or human uses. The LCR MSCP was divided into 15 discrete land cover types for the purpose of developing the conservation plan.

Term	Definition
Law of the River	A collection of various laws, treaties, and court decisions affecting all forms of use of the Colorado River. The Law of the River includes, but is not limited to, the Colorado River Compact of 1922, the Boulder Canyon Project Act of 1928, the California Seven Party Agreement of 1931, the Mexican Water Treaty and Protocol of 1944, the Upper Colorado River Basin Compact of 1948, the 1956 Colorado River Storage Project Act, the Supreme Court Decree of 1964 in <i>Arizona versus California</i> (376 U.S. 340) (Decree), and the Colorado River Basin Project Act of 1968.
Loss of Habitat	Loss of habitat is a reduction in habitat quality or quantity that results from an adverse change in an environmental condition. Environmental conditions may include cover, substrate, channel type, interacting species, river area, reservoir area, water quality, and groundwater depth.
Maintain Habitat	Actions that, when implemented, perpetuate the quantity and quality of existing covered species habitats in habitat areas that, without implementing such actions, would degrade or be lost over time.
Mainstem	The Colorado River in the Lower Basin (i.e., main channel after tributary inputs).
Mainstream	The legal character of Lower Colorado River water subject to apportionment pursuant to the Supreme Court Decree of 1964 in <i>Arizona versus California</i> (376 U.S. 340).
Mesotrophic	Classification of lakes with nutrient levels and primary productivity intermediate between oligotrophic and eutrophic lakes.
Oligotrophic	Classification of lakes with the lowest nutrient levels and lowest primary production.
Open Water	A flooded or ponded area that does not support rooted vegetation. Deep water (over 6 feet deep) or frequent, rapid fluctuation in water depth are usually the cause for the lack of vegetation.
Permit Applicants	The Permit Applicants are those entities requesting Section 10 incidental take permits from USFWS for the species and activities covered in the accompanying HCP.
LCR MSCP planning area	The LCR MSCP planning area comprises the historical floodplain of the Colorado River from Lake Mead to the Southerly International Boundary and areas to elevations up to and including full pool elevations of Lakes Mead, Mohave, and Havasu. The LCR MSCP planning area also defines the action area—defined as “...all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action” (50 C.F.R. §402.02)—addressed in the LCR MSCP BA.
LCR MSCP Program Manager	The Program Manager is the post to be established by Reclamation, as described in the FMA, that will be responsible for implementing the LCR MSCP.
Population	A group of individuals of the same species inhabiting a given geographic area at the same time and among which mature individuals interbreed or are likely to interbreed. Ecological interactions and genetic exchange are more likely among individuals within a population than with individuals in other populations of the same species.

Term	Definition
Production	Production is the total tissue elaboration of a population per unit area per unit of time; it involves the ability of populations of animals to replace themselves in terms of the materials in the bodies of their individuals (Warren 1971). Tissue elaboration includes growth, accumulation of fat, gonad maturation, reproduction, recruitment and contribution to a population. For example, production for sandhill cranes in the LCR MSCP planning area would include the accumulation of fat to support migration. For razorback suckers in a backwater, production may include growth and reproduction over a period of a year.
Range	The geographic area a species is known or believed to occupy.
Reasonable and Prudent Alternatives	Alternative actions identified during formal consultation that can be implemented in a manner consistent with the intended purpose of the action, that can be implemented consistent with the scope of the federal agency's legal authority and jurisdiction, that is economically and technologically feasible, and that the Director of USFWS believes would avoid the likelihood of jeopardizing the continued existence of listed species or resulting in the destruction or adverse modification of critical habitat (50 C.F.R. §402.02).
Reasonable and Prudent Measures	Actions the Director of USFWS believes necessary or appropriate to minimize the impacts, i.e., amount or extent, of incidental take (50 C.F.R. §402.02).
Reclamation/States	Reclamation/States is the group of representatives from Arizona, California, Nevada, and Reclamation that were responsible for developing the primary components of the LCR MSCP Conservation Plan described in the HCP and summarized as part of the proposed action in Section 2.7 of this BA.
Recovery	The process by which the decline of an endangered or threatened species is arrested or reversed, or threats to its survival neutralized so that its long-term survival in nature can be ensured. Recovery includes actions to achieve the conservation and survival of a species (U.S. Fish and Wildlife Service and National Marine Fisheries Service 1998), including actions to prevent any further erosion of a population's viability and genetic integrity and actions to restore or establish environmental conditions that enable a species to persist (i.e., the long-term occurrence of a species through the full range of environmental variation).
Replace Habitat	To replace habitat is to mitigate for habitat lost as a result of LCR MSCP covered activities by enhancing or restoring habitat equivalent to or greater value than the habitat lost. Habitat replaced under the LCR MSCP may require ongoing management to ensure replaced habitat value is maintained over the 50-year duration of the LCR MSCP.
Riparian	Vegetation or other resources associated with a river that are dependent on groundwater and floodwater controlled by the river. Riparian land cover types in the LCR MSCP planning area are cottonwood-willow, honey mesquite, salt cedar, salt cedar-honey mesquite, salt cedar-screwbean mesquite, marsh, and arrowweed land cover types.
LCR MSCP Steering Committee	The LCR MSCP Steering Committee has been responsible for the preparation of the documents that establish and define the LCR MSCP and provide compliance with environmental laws and regulations.

Term	Definition
Succession	The change in the composition and structure of a biological community over time in the absence of major disturbance (e.g., fire, flood, land clearing by people). For example, deep open water in a backwater may gradually fill over time with organic and inorganic material and become colonized by marsh species (e.g., cattail and bulrush). The marsh may eventually be succeeded by riparian forest of willows and cottonwoods. A major flood event could scour out the backwater site, returning it to an open water condition.
Take	From Section 3(18) of the Federal Endangered Species Act: The term “take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The definition of “take” under the California Endangered Species Act comes from Section 86 of the California Fish and Game Code: The term take means an action to or attempt to hunt, pursue, catch, capture, or kill.
Transitory River Segments	Segments of the historical Colorado River, Muddy River, Virgin River, and other tributaries to Lake Mead that can form within the full pool elevation of Lake Mead when the lake elevation is below the full pool elevation.
Unoccupied Habitat	Sites that support all of the constituent elements necessary for a species, but where surveys have determined the species is not currently present. The lack of individuals or populations in the habitat is assumed to be the result of reduced numbers or distribution of the species such that some habitat areas are unused. It is expected that these areas would be used if species numbers or distribution were greater. See also definition of “suitable habitat.”